



This memorandum assesses existing activities within the City of Riverside that affect greenhouse gas (GHG) emissions and summarizes similar activities occurring at the state, regional, and subregional level.

INTRODUCTION

The consultant team performed a desktop review of existing plans, policies, and programs across the energy, waste, water, transportation, land use, and green infrastructure sectors. Assessing existing policies in this way allows for a cross-check of strategies already employed within the City, and will assist in determining those programs or policies most needed, to be implemented in the Riverside Restorative Growthprint: Climate Action Plan (CAP).

STATE LAWS AND POLICIES

EXECUTIVE ORDER S-3-05

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order (EO) S-3-05, which established the following GHG emission reduction targets:

- by 2010, California shall reduce GHG emissions to 2000 levels;
- by 2020, California shall reduce GHG emissions to 1990 levels; and
- by 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

EO-S-3-05 created the California Climate Action Team (CAT), which is tasked with the preparation of biennial science assessment reports on climate changes and adaptation options for California. The first CAT Report to the Governor and Legislature was published in 2006, and contains recommendations and strategies to help meet the targets in EO-S-3-05. These were expanded upon in the 2009 CAT Biennial Report to the Governor and Legislature. The new information includes revised climate and sea-level projections, and an evaluation of climate change within the context of broader social changes, such as land-use changes and demographic shifts. The action items in the report focus on the preparation of the Climate Change Adaptation Strategy, required by EO-S-13-08.

ASSEMBLY BILL 32 – CALIFORNIA GLOBAL WARMING SOLUTIONS ACT OF 2006

ASSEMBLY BILL (AB) 32 WAS approved by the legislature and signed by Governor Schwarzenegger in 2006. The landmark legislation requires CARB to develop mechanisms that will reduce GHG emissions to 1990 levels by 2020. Mandatory actions under the legislation to be completed by CARB include:

- Identification of early action items that can be quickly implemented to achieve GHG reductions. These early action items were adopted by CARB in 2007 and include regulations affecting landfill operations, motor vehicle fuels, car refrigerants, and port operations, among other regulations.
- Development of a scoping plan to identify the most technologically feasible and cost-effective measures to achieve the necessary emissions reductions to reach 1990 levels by 2020. The Scoping Plan identifies a variety of GHG reduction measures that include direct regulations, alternative compliance mechanisms, incentives, voluntary actions, and market-based cap-and-trade program. The Plan identifies local governments as strategic partners to achieving the state goal and translates the reduction goal to a 15% reduction of current emissions by 2020.
- Creation and adoption of regulations to require the state's largest industrial emitters of GHGs to report and verify their emissions on an annual basis.

SENATE BILL 97 – CALIFORNIA ENVIRONMENTAL QUALITY ACT GUIDELINE AMENDMENTS OF 2007

Senate Bill (SB) 97 was adopted in 2007 and directed the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to address GHG emissions. The CEQA Guidelines prepared by OPR were adopted in December 2009 and went into effect March 18, 2010. Local governments may use adopted plans consistent with the CEQA Guidelines to assess the cumulative impacts of projects on climate change, if the plan for the reduction of GHG emissions accomplishes the following:

- Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area.
- Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable.
- Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area.
- Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.
- Establish a mechanism to monitor the plan's progress toward achieving the level and to require an amendment if the plan is not achieving specified levels.
- Be adopted in a public process following environmental review.

REGIONAL PLANS, PROGRAMS AND POLICIES

SUSTAINABILITY FRAMEWORK FOR WESTERN RIVERSIDE COUNTY

The Western Riverside Council of Governments (WRCOG) Sustainability Framework (Framework) is a subregional planning effort that establishes, implements, and continuously refines an overarching sustainability plan for the communities in Western Riverside County. The Framework aims to: initiate a dialogue about the importance of sustainability in the region; provide a vision and goals to guide local action and regional collaboration; define more immediate short-term goals that can contribute to the longer-term vision of the Framework; and define indicators, benchmarks, and targets that provide a measure of the effectiveness of Framework programs and policies. The Framework acts as a "living" document and contains goals and actions applying to economic development, education, public health, transportation, water and wastewater, energy, and the environment. The City of Riverside actively participated in the WRCOG Economic Development and Environment and Energy Subcommittees, responsible for developing and carrying out the action items.



WESTERN RIVERSIDE COUNTY CLEAN CITIES COALITION

The Western Riverside County Clean Cities Coalition (Coalition) is a voluntary local government and industry partnership that aims to reduce the consumption of petroleum fuels and improve air quality in the WRCOG subregion. The Coalition works to mobilize local stakeholders toward expanding the use of alternative fuel vehicles (AFV) and advanced technology vehicles, promoting local idle reduction measures, and strengthening local AFV fueling infrastructure. The governments of Western Riverside County have taken leadership roles in the Coalition, coordinating efforts between government and industry to recognize the value of partnership in achieving air quality, energy efficiency, economic development, and transportation goals, while advancing the clean air and energy efficiency goals of the national Clean Cities program administered by the U.S. Department of Energy.

RIVERSIDE COUNTY HEALTH COALITION

WRCOG and its member jurisdictions are engaged in numerous efforts and initiatives to promote healthy communities, including participating in the Riverside County Health Coalition (RCHC). The RCHC is a collaboration of public and private sectors, school districts, community businesses, local and regional organizations and

community members committed to policy development and advocacy, environmental change and community empowerment for healthy lifestyles in Riverside County. This initiative includes a focused partnership effort with local governments to integrate healthy communities planning principles into the local planning and policy-making process. Healthy communities principles promote vibrant, safe, healthy communities through connecting key elements of health, economics, social welfare, and the environment.



WRCOG SUBREGIONAL CLIMATE ACTION PLAN

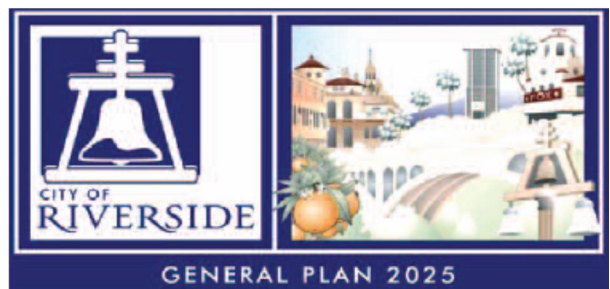
The Western Riverside Council of Governments (WRCOG) developed a Subregional Climate Action Plan (CAP) with the objectives of creating more livable, equitable, and economically vibrant communities. Twelve cities in the subregion, including Riverside, participated in the development of a Subregional CAP, which sets forth subregional emissions reduction targets, emissions reduction measures, and action steps to assist each community in demonstrating consistency with California's Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). The CAP includes feasible strategies that will help

the WRCOG subregion advance toward GHG emissions reduction goals, while affording each community additional economic, public health and environmental benefits. The Plan builds upon existing successes and encompasses a range of strategies from expanding the successful HERO program, to increasing residential and business recycling, to reducing vehicle miles traveled, and increasing energy efficiency. It offers cost-effective strategies that support the local economy; reduce risks for energy and fuel price increases and volatility; and offer a wide range of other environmental, social, and economic benefits. Actions that reduce GHG emissions will also support other local community goals and contribute to sustaining the WRCOG subregion as a vibrant community. GHG reduction measures in the CAP fall under four main sectors: energy, transportation and land use, solid waste, and water. The WRCOG CAP describes how Riverside and the other participating jurisdictions collectively meet a subregional 2020 GHG reduction target of 15% below baseline emissions, consistent with AB 32. Serving as the driving force behind the GHG reductions in the subregional CAP, Riverside has committed to implementing the WRCOG measures locally as described in the following sector discussions on Energy, Transportation and Land Use, Water and Solid Waste. Riverside is expected to achieve the largest share of GHG reductions of all cities participating in the CAP.

LOCAL PLANS AND POLICIES

GENERAL PLAN 2025

The adoption of the City's General Plan 2025 Program in November of 2007 included the seven State mandated Elements, Land Use and Urban Design; Circulation and Community Mobility; Housing; Public Safety; Noise; Open Space, Conservation Parks and Recreation Elements as well as several optional Elements. The Air Quality Element, which recognizes Riverside as a leader in clean air and a healthy environment, provides the scientific and regulatory context describing the importance of improving air quality and reducing greenhouse gas emissions. The Air Quality Element describes city programs and regional initiatives that had been implemented at the time the plan was adopted, and outlines programs and partnerships that the City would pursue in the future. Policies in the Air Quality Element help to set the framework for the air quality and climate change initiatives the City is pursuing today. As required by State law, as part of the General Plan 2025, the Implementation Plan includes tools, or action items, that address the Objectives and Policies of the Elements. In addition, there are Overarching Tools in the Implementation Plan that addressed the more significant Objectives and Policies of the General Plan 2025.



PROPOSITION R AND MEASURE C

In addition to the City's General Plan, the City has two major voter approved initiatives to preserve the City's natural resources. With the passage of Proposition R in 1979 and Measure C in 1987, voters expressed serious community resolve to protect the Arlington Heights Greenbelt and Rancho La Sierra areas agricultural heritage and prevent urban sprawl thereby preserving them as community treasures. These measures serve to protect natural hillsides, arroyos and other important topographical features and Riverside's greenbelt as a buffer between urban and rural land uses.

GREEN ACTION PLAN

The 2012 Green Action Plan is a product of the City's Clean City's Clean & Green Task Force, which was created to build upon the policies of the city's General Plan, ensure that the new green guidelines would be followed, provide a framework for sustainability pilot projects, and initiate partnerships among regional agencies and nearby cities. The Task Force first created the Sustainability Policy Statement (SPS), a document featuring eight main categories: Save Water, Keep it Clean, Make it Solar, Make it Shady, Clean the Air, Save Fuel, Make it Smart and Build Green. Once the SPS was adopted, the Green Action Plan was created to serve as a guidebook that would tie specific tasks to the policies of the SPS. The Green Action Plan focuses on seven key areas of city life: Energy, Greenhouse Gas Emissions, Waste, Urban Design, Urban Nature, Transportation and Water.

The city formed a Green Accountability Performance (GAP) Committee to carry out the tasks and within just two years nearly each of the plan's 38 tasks had been accomplished. Through collaboration with the California Department of Conservation (CDC) on solid waste task implementation, the GAP Committee was reimagined to focus on healthy communities, and Riverside was awarded its designation by the CDC as an Emerald City, an honor that has gained the City national acclaim. Healthy Communities was the eighth focus area with 19 goals and over 50 additional tasks, strengthening the Green Action Plan as setting a clear path to sustainability and serving as a living document that reflects the growth of the green movement, the progression of renewable energy, and the fresh ideas of the GAP Committee. The Green Action Plan includes two Goals with associated action items, as shown below, that address GHG's across all sectors.

Goal 4: *Establish the GHG emissions baseline for the City of Riverside.*

- A. Establish the 1990 GHG emission baseline on a per capita basis, utilizing the City of Riverside, as a geographical locale, by the end of 2010 and every 5 years after.
- B. Develop and incorporate mitigation measures in the Green Action Plan that provide verifiable GHG savings by 2010.
- C. Begin an audit of the existing inventories to determine their adequacy for implementing a Climate Action Plan.
- D. Work with Western Riverside Council of Government's (WRCOG) Climate Action Plan (CAP) Team to begin updating the inventories in compliance with the audit leveraging off the WRCOG Regional CAP Grant.

Goal 5: *Create a climate action plan to reduce GHG emissions to 7% below the 1990 City baseline by 2020 utilizing the City boundaries as defined in 2008.*

- A. Establish programs that comply with South Coast Air Quality Management District (AQMD) and the City's General Plan 2025 to improve the quality of air in Riverside.
- B. Aggressively support programs at the AQMD that reduce GHG and particulate matter generation in the Los Angeles and Orange County regions to improve air quality and reduce pollution in Riverside.
- C. Monitor relevant organizations and the Governor's Office of Planning and Research as they begin to explore setting thresholds for GHG reduction over the next six months.
- D. Identify mitigation measures completed in GAP and GAP2.
- E. Assess mitigation impacts of completed GAP goals.
- F. Create a list of CAP mitigation to meet GHG reduction goal.

- G. Integrate CAP mitigation measures with California Environmental Quality Act (CEQA) for compliance with SB-375.
- H. Create a tier structure of most cost effective mitigation measures and implementation timeline.
- I. Identify staff committee dedicated to CAP implementation from Planning, Public Utilities, Parks and Recreation, and Public Works.



RIVERSIDE PUBLIC UTILITIES

The City of Riverside Public Utilities (RPU) Department provides water and electric services to the residents and businesses of Riverside. Through **Green Riverside**, the City supports and implements the various tasks of the Green Action Plan and other sustainability initiatives, offering multiple energy efficiency programs that reduce consumption while promoting the City's sustainability goals. **Blue Riverside** includes multiple water conservation programs that reduce water consumption.

ENERGY

Electricity and natural gas used for appliances, lighting, heating and cooling, cooking, and other activities within residential, commercial, and industrial uses typically account for between 40% and 70% of a California jurisdiction's GHG emissions. Energy accounts for approximately 52% of Riverside's GHG emissions. Energy emissions are considered demand-side emissions, meaning that they are attributable to the jurisdiction where consumption takes place, rather than to the jurisdiction where production takes place. The following discussions identify existing local energy efficiency, renewable energy generation, street and area lighting, and water and wastewater treatment efficiency policies and programs in the city and subregion.

STATE LAWS AND POLICIES

EXECUTIVE ORDER S-21-09 – RENEWABLE PORTFOLIO STANDARD

At the state level, Executive Order S-21-09 established a statewide renewable energy portfolio target of 33% by year 2020. In addition, the AB 32 Climate Change Scoping Plan has established several statewide measures to reduce electricity and natural gas consumption in residential, commercial, and industrial land uses throughout the state.

TITLE 24 - CALIFORNIA GREEN BUILDING STANDARDS CODE (CAL GREEN)

At the state level, Title 24 building standards and the California Green Building Standards Code (CalGreen) provide basic energy efficiency code requirements for new construction, as well as advanced tier (e.g., Tier 1, Tier 2) code options that local governments can choose to implement across-the-board, or for certain project types. The California Energy Commission estimates that the 2013 standards will result in residential construction that is 25% more efficient and non-residential construction that is 30% more efficient than the 2008 standards. The new standards go into effect on July 1, 2014.

ASSEMBLY BILL 1109 - LIGHTING EFFICIENCY AND TOXICS REDUCTION ACT OF 2008

The Lighting Efficiency and Toxics Reduction Act of 2008 (AB 1109) requires reductions in lighting energy use, encourages use of new lighting technologies to save energy, reduces hazardous waste, and increases recycling.

SENATE BILL 1078 - RENEWABLE PORTFOLIO STANDARD

Established in 2002 under Senate Bill 1078, accelerated in 2006 under Senate Bill 107 and expanded in 2011 under Senate Bill 2, California's Renewables Portfolio Standard (RPS) is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33% of total procurement by 2020.

SENATE BILL 1368 - PERATA, CHAPTER 598, STATUTES OF 2006

Senate Bill (SB) 1368 (Perata, Chapter 598, Statutes of 2006) limits long-term investments in baseload generation by the state's utilities to power plants that meet an emissions performance standard (EPS) jointly established by the California Energy Commission and the California Public Utilities Commission. SB 1368 requires posting of notices of public deliberations by publicly owned utilities on long-term investments on the Energy Commission website and the establishment of a public process for determining the compliance of proposed investments with the EPS.

ASSEMBLY BILL 811 (2008) – CONTRACTUAL ASSESSMENTS: ENERGY EFFICIENCY IMPROVEMENTS

Contractual Assessments: energy efficiency improvements, Assembly Bill 811[1] (AB 811) was signed into law by Governor of California Arnold Schwarzenegger on July 21, 2008. AB 811 authorizes all California cities and counties to designate areas within which willing property owners can enter into contractual assessments to finance the installation of distributed renewable energy generation or energy efficiency improvements that are permanently fixed to the property owner's residential, commercial, industrial, or other real property. This allows property owners to finance renewable generation and energy efficiency improvements through low-interest loans that are repaid as an item on the property owner's property tax bill.

ASSEMBLY BILL 1103 – COMMERCIAL BUILDING ENERGY DISCLOSURE PROGRAM

Commercial Building Energy Disclosure Program Assembly Bill (AB) 1103 of 2007, which went into effect on January 1, 2014, requires energy benchmarking and energy disclosure for non-residential buildings, which must be released to any prospective buyer, lessee, or lender. Non-residential business owners must use the Environmental Protection Agency's ENERGY STAR Portfolio Manager system, which generates an energy efficiency rating for the building. Ratings are from 1 to 100, with 100 being the most energy efficient, and must have their data certified by a licensed professional engineer.

OTHER FEDERAL AND STATE ENERGY PROGRAMS

Several local energy efficiency programs exist based in part on Federal and State energy efficiency programs, including the:

- Federal Housing Association Section 203B energy efficient mortgage program;
- U.S. Department of Energy and Environmental Protection Agency's technical assistance programs for renewable energy and energy efficiency, which includes parking lot upgrade assistance for local governments;
- U.S. Department of Health and Social Services low-income energy assistance programs;
- California Solar Initiative cash rebates for installing solar panels;
- Power purchase agreements (PPA's), authorized by the California Public Utilities Commission, allowing utilities to purchase power from distributed renewable energy facilities interconnected with its grid;
- Low-Income Home Energy Assistance Program (LIHEAP), which is federally funded and administered through the Community Action Partnership of Riverside County (CAP Riverside), which provides utility payment assistance and weatherization services to low income customers in Riverside County;
- Weatherization Assistance Programs (WAP) for Multi-family and Low-income households;
- Energy Efficiency Rating System for New Residential Units, which is provided through CalGreen compliance; and
- WRCOG HERO Program, which provides Property Assessed Clean Energy (PACE) financing for energy and water efficiency and renewable energy projects for residential and commercial properties throughout the subregion.



CITY OF RIVERSIDE ENERGY POLICIES

In addition to State and regional programs, the City of Riverside has several programs that are focused on improving energy efficiency for local home and business owners.

- High Efficiency Major Appliance (e.g. Refrigerator) Requirements for New Construction
- Shade Tree Requirements for New Construction
- Subsidized Light Bulb (CFL, LED) Distribution Campaign
- Building Owner/Tenant Smart-Grid Outreach Campaign

Renewable energy programs in the City of Riverside include both incentives and barrier reduction policies for small-scale renewables, as well large scale municipal renewable energy facilities.

- Reduced Permitting Fees for Building Scale Renewable Energy
- Streamlined Priority Permitting for Building-scale Renewable Energy
- Minimum Renewable Electricity Requirements for New Buildings
- Municipal Photovoltaic or Solar Thermal Facilities
- Other Municipal Renewable Energy Facilities
- Food-Waste Biodigester Energy Facility
- Wastewater Treatment Biogas-to Energy

Public realm lighting policies and programs address improvements and upgrades to public lighting and lighting in semi-public areas (e.g., commercial parking lots), as well as financing structures to incentivize these improvements.

- Streetlight Upgrade Program
- Traffic Light Conversion Program, includes both conversion and synchronization of traffic signals
- Non-Residential Outdoor Lighting Retrofit Outreach Campaign and Rebates

GREEN ACTION PLAN

The Green Action Plan contains goals and implementing actions to reduce energy-related GHGs through the use of renewable energy and increasing the efficiency of new and existing buildings, as follows.

Goal 1: *Increase the use of non-greenhouse gas (GHG) emitting energy by 2020 to 50% with at least 33% coming from renewable sources.*

- A. Provide an annual update of the entire energy portfolio to RPU Board.
- B. Provide 20 MW of regional non-emitting sources by 2020.
- C. Create a Renewable Energy Credit (REC) rate or database for organizations looking to contribute to renewable energy.

Goal 2: *Save 1% of communities load annually based on a 2004 baseline, and reduce the City's peak electrical load demand by 10% overall.*

- A. Increase commercial direct install programs.
- B. Add a program to improve low-income energy efficiency.
- C. Increase the energy efficiency of local residential and commercial structures.
- D. Develop a Demand Response Integration Plan.
- E. Develop an electric vehicle rate for residential and business customers.
- F. Assess City facility usage through a more thorough monitoring mechanism in the new billing system.
- G. Create a rate for demand response customers.
- H. Shift 10% of peak load to alternative periods by 2020 through cost-effective programming.

Goal 3: Install at least 20 MW of photovoltaic (PV) systems by 2020.

- A. Continue to offer \$2.5 million towards residential and commercial PV installations annually.
- B. Provide financing mechanisms for residential/ commercial customers to install PV by 2010 and thereafter.
- C. Issue a Request for Proposal for a 5 MW Tequesquite landfill solar project.
- D. Develop solar incentives to encourage multiple housing PV systems for developers.
- E. Review existing programs designed to make solar available to low and moderate incomes.
- F. Expedite all solar PV projects through the plan review and permitting process.
- G. Keep plan check and permit fees for solar PV systems affordable and reasonable by assessing fees based on actual and/or estimated cost of service rather than the typical valuation based fee.
- H. Develop solar photovoltaic system installation guidelines according to the National Electrical Code and provide to contractors and designers in order to assist in streamlining and simplifying the design and installation process.

Goal 8: Increase green development throughout Riverside.

- A. Adopt voluntary standards and programs for residential and commercial projects with incentives for excellence in sustainable design and development that encourage green building by 2011 and thereafter.
- B. Encourage programs to establish green operations and maintenance for public and private sector businesses by 2012.
- C. Develop annual programming that provides incentives for residential and commercial green building efforts with an emphasis on the retrofit of existing facilities by 2012.
- D. Adopt and enforce the provisions of the 2010 California Green Building Code.
- E. Develop easy to understand forms and handout literature that will enable designers and contractors to implement green building standards on projects in Riverside, and streamline the plan review and inspection related functions of the Green Building Code.

RIVERSIDE PUBLIC UTILITIES PROGRAMS

Riverside Public Utilities (RPU) offers several energy efficiency rebate and incentives programs through Green Riverside, that help both home and business owners improve their energy efficiency and increase renewable energy use.

Table 1 - RPU Energy Programs

Domestic Time-of-Use Tiered Rate Plan	Offers special rates for customers who manage their energy use by switching some uses to off-peak hours.
Whole House Rebate Program	Rebates increase for customers participating in two or more energy and/or water efficiency programs; up to 250% of listed rebate for maximum participation.
Energy Star Appliances and Devices	Rebates for purchasing Energy Star refrigerators, AC units, dishwashers, clothes washer, ceiling fans, and televisions.
Residential Photovoltaic Rebate Program	Provides financial incentives to RPU electric customers who purchase and install photovoltaic systems.
Tree Power	Rebates credited towards utility bill for planting up to five trees per year.
Weatherization	Rebates are available for attic and exterior wall insulation, whole house fans, attic fans (solar and electric), duct insulation and sealing, window film, and Cool Roof coatings or products.
Pool & Spa Pump Rebate	Installing qualifying multi-flow or variable-speed pool pumps with appropriate controllers (two speed pumps do not qualify) on in-ground pools or spas.
Pool Pump Billing Credit	Five dollar (\$5) credit towards bill for using pool pump during off-peak hours.
Air Conditioning Incentives	Rebates to residential customers for installation of new high energy-efficient air conditioning systems or heat pumps, or replace old units.
Energy Audit Tool	Online audit tool for residential or commercial RPU customers.
Lighting Retrofit Outreach	Promotes installation of high efficiency light bulbs.
Green Power Premium	Helps RPU purchase renewable energy.

Table 1 - RPU Energy Programs

Direct Install	Helps small business customers lower their utility bills by installing energy and water efficiency upgrades at low or no cost.
Lighting Rebate	Incentives for commercial customers who replace older, inefficient lighting with the most energy-efficient fixtures; includes daylighting and occupancy sensors, along with solar tubes and sky lighting

EXISTING WRCOG SUBREGIONAL CAP MEASURES

The WRCOG CAP includes both sub-regional measures, which reflect Statewide legislation, and local measures that will be implemented by each city using varying degrees of community participation and performance metrics, including the highest level, Platinum, followed by Gold and Silver. WRCOG Energy measures aim to increase community-wide building and equipment efficiency and renewable energy use, and promote energy efficiency and renewable energy generation use supporting municipal operations in our communities.

Table 2 – WRCOG CAP Measures

Measure	Participation Level	Actions
SR-1 Renewables Portfolio Standard	Sub-Regional	RPU must secure 33% of their power from renewable sources by 2020.
SR-2: 2013 California Building Energy Efficiency Standards (Title 24, Part 6)	Sub-Regional	The California Energy Commission estimates that the 2013 standards will result in residential construction that is 25% more efficient and nonresidential construction that is 30% more efficient than the 2008 standards. The new standards go into effect on July 1, 2014.
SR-3: HERO Residential Program	Sub-Regional	HERO Program is a public-private partnership administered by WRCOG, offering property assessed clean energy (PACE) financing to homeowners for the installation of energy efficient, renewable energy, and water conservation improvements.
SR-4: HERO Commercial Program	Sub-Regional	HERO Program is a public-private partnership administered by WRCOG, offering property assessed clean energy (PACE) financing to business owners for the installation of energy efficient, renewable energy, and water conservation improvements.
SR-5: Utility Programs	Sub-Regional	Accounts for rebates offered by RPU and other utilities in the WRCOG subregion.
E-2: Traffic and Street Lights	Platinum	Requires 100% of traffic and street lights to be converted to high-efficiency bulbs by 2020. For Riverside, this equates to 1.26 million kWh/year of energy savings from the Streetlights and Traffic Signals/Controllers subsector of Local Government GHG Inventory.
E-3: Shade Trees	Gold	Provide a subsidized program to support planting jurisdiction-identified shade tree species, which would result in the planting of approximately 62,900 new shade trees by 2020.

WATER

Water-related GHG emissions are mainly caused by energy used to pump, transport, heat, cool, and treat potable water. Emissions associated with this energy use typically account for one to five percent (1-5%) of a California jurisdiction's communitywide GHG inventory. With water supplies expected to continue declining into the future and uncertainty regarding reliability of continued Delta water supplies, water conservation strategies have the added benefits of aligning demand with future water availability, improving public health, and cost savings.

STATE LAWS AND POLICIES

ASSEMBLY BILL 1881 – MODEL LOCAL WATER-EFFICIENT LANDSCAPE ORDINANCE OF 2006

Requirements under Assembly Bill (AB) 1881 (2006) led the Department of Water Resources to develop a model local water-efficient landscape ordinance for local agencies. The model ordinance requires a landscape and irrigation design plan, irrigation audit, irrigation survey, and irrigation water use analysis. It also requires recycled water, storm water management, public education, environmental review, waste water prevention, and effective precipitation programs. Most WRCOG jurisdictions have adopted the model ordinance or a locally-tailored variation of the model. The efficiency requirements limit landscape watering and measure the performance of irrigation systems by the amount of water that is required, compared to the amount of water that is used. This ensures that landscapes are not being overwatered or watered incorrectly.

ASSEMBLY BILL 1420 – URBAN WATER MANAGEMENT PLANNING ACT AMENDMENTS OF 2007

Assembly Bill (AB) 1420 (Stats. 2007, ch. 628) amended the Urban Water Management Planning Act, Water Code Section 10610 et seq., to require, effective January 1, 2009, that the terms of, and eligibility for, any water management grant or loan made to an urban water supplier and awarded or administered by the Department of Water Resources (DWR), State Water Resources Control Board (SWRCB), or California Bay-Delta Authority (CBDA) or its successor agency be conditioned on the implementation of the water Demand Management Measures (DMMs) described in Water Code Section 10631(f).

SENATE BILL 7X-7 – WATER CONSERVATION ACT OF 2009

The scarcity of water in California has led the State to establish a 20% per-capita water use reduction requirement by 2020 through Senate Bill (SB) 7, the Water Conservation Act (2009). Water rates and pricing are among the methods to support conservation and reuse identified in California's 20x2020 Water Conservation Plan. California's 20x2020 Water Conservation Plan also outlines water efficiency practices to conserve household water. Under the Water Conservation Act of 2009, starting on January 1, 2017, any California home built before January 1, 1994 will require water-conserving plumbing fixtures as a point of sale requirement. These and additional state water conservation requirements have led to the creation of local ordinances.

SENATE BILL 407 – WATER EFFICIENT FIXTURES 2009

Senate Bill (SB) 407 goes into effect on January 1, 2014, and requires all renovations of single-family, multifamily and commercial properties to install water efficient fixtures to receive issuance of a certificate of final completion and occupancy or final permit approval by the local building department. On and after January 1, 2017, a seller or transferor of single-family residential real property must disclose to a purchaser or transferee, in writing, specified requirements for replacing plumbing fixtures, and whether the real property includes noncompliant plumbing. On and after January 1, 2019, a seller or transferor of multifamily residential real property (more than one unit), or commercial real property must disclose to a purchaser or transferee, in writing, specified requirements for replacing plumbing fixtures, and whether the real property includes noncompliant plumbing. By January 1, 2019, all noncompliant plumbing fixtures in multifamily residential real property and commercial real property, as defined, must be replaced with water conserving plumbing fixtures.

ASSEMBLY BILL 2572 – KEHOE, WATER METERS

Assembly Bill (AB) 2572 requires all urban water suppliers to install water meters on municipal and industrial water service connections that are located in its service area by January 1, 2025.

CITY OF RIVERSIDE WATER POLICIES

In addition to State and regional programs, the City of Riverside has several policies and programs that are focused on improving water conservation through utility billing programs and water fixture efficiency for home and business owners.

- Tiered rate pricing, which charges different rates for water use based on the amount of consumption over a period of time.
- Consumer education billing programs in conjunction with tiered rates to ensure that residents within the service area understand where their water is coming from, why it costs what it does, and what the benefits of conservation are.
- Outreach and education programs, including classes, workshops, and online games for kids describing the importance of water efficiency and water conservation.
- Recycled water produced at the City of Riverside Water Quality Control Plant.
- Water efficient landscape Ordinance.
- Landscape watering limits (time of day, days per week).
- Mandatory irrigation system efficiency requirements for large retrofits.
- Recycled water infrastructure requirements for new construction.
- Recycled water use Ordinance.

GREEN ACTION PLAN

The Green Action Plan contains the following goals and implementing actions to reduce water use.

Goal 16: *Reduce per capita water usage 20% citywide by 2020.*

- Implement water efficiency, conservation, and education programs to reduce the City's per capita potable water usage by 20% by 2020.
- Implement a city-wide water conservation ordinance by 2010.
- Create Commercial/Industrial water use efficiency program incentivizing performance.
- Implement indoor fixture based replacement programs targeting high density housing.
- Enact "Stage 1 - Normal Water Supply" provision of water conservation ordinance enforcing irrigation time restrictions.
- Revise design guidelines and qualification for landscaping in new development or major retrofits.
- Adopt and enforce the provisions of the 2010 California Green Building Code for water efficiency standards.
- Develop easy to understand forms and handout literature that will enable designers and contractors to implement the water efficiency standards of the Green Building Code on their projects in Riverside and streamline the design and plan review process.
- Maintain high water quality through appropriate recharge, conservation, and management of sources.
- Maintain a high level of water quality through source water protection and contaminated source remediation.

Goal 17: *Increase the use of recycled water by 30% by 2020, based on the 2008 baseline.*

- Develop recycling methods and expand existing uses for recycled wastewater by 2015.
- Increase the use of recycled water from the Wastewater Treatment Plant (WWTP) to recover 15,000 acre feet or 30% of plant effluent by 2020.
- Obtain recycled water permit.
- Construct Phase I Recycled Water Project.
- Adapt one large water customer to recycled water.
- Double the production capacity of recycled water from the WWTP.
- Increase the use of recycled water from the WWTP to recover 9,000 acre feet of plant effluent by 2020.
- Break ground on Pellisier Ranch Groundwater Recharge Project.
- Permit increase production capacity of recycled water at the WWTP.

RIVERSIDE PUBLIC UTILITIES PROGRAMS

Riverside Public Utilities (RPU) offers various programs through [Blue Riverside](#) to residents and businesses for both indoor and outdoor water efficiency and water conserving improvements.

Table 3 – Blue Riverside Water Conservation Programs

High Efficiency Clothes Washer	Rebates for purchasing Energy Star-rated High-Efficiency Clothes Washer (HECW) with a water factor of 4.0 or less.
High Efficiency Toilets	Rebates for installing High-Efficiency Toilets (HET) or Dual Flush HET.
Artificial Turf	Rebates for installing artificial turf.
Sprinkler Nozzles	Rebates for installation of pop-up sprinkler spray heads with qualifying water efficient sprinkler nozzles.
Waterwise Landscaping	Rebates per square foot of existing lawn for replacing with water efficient, California native, and drought tolerant plants.
Weather Based Irrigation Controllers	Rebate offered for installing a Weather Based Irrigation Control (WBIC) that automatically adjusts irrigation schedules in response to changing weather or environmental conditions.

EXISTING WRCOG SUBREGIONAL CAP MEASURES

Water conservation programs in the City and Subregion are generally implemented in order to help each jurisdiction achieve their SB 7X-7 water reduction target by 2020. For this reason, the WRCOG CAP relies on a single measure to quantify GHG emission reductions from water conservation programs, as shown below.

Measure SR-14: Water Conservation, SB 7X-7 is part of a California legislative package passed in 2009 that requires urban retail water suppliers to reduce per-capita water use by 10% from a baseline level by 2015, and to reduce per capita water use by 20% by 2020. While this is considered a state measure, it will be up to the local water retailers, jurisdictions, and water users to meet these targets.

TRANSPORTATION AND LAND USE

Transportation typically generates more than 50% of an individual California jurisdiction's communitywide emissions (46% for the City of Riverside). These emissions are created largely by the number of vehicle miles traveled (VMT) by residents and employees. Long vehicle trips and high numbers of trips create high emissions. Successfully reducing vehicle emissions relies on reducing or shortening vehicle trips, either by making alternative modes of transportation (e.g., transit, bicycling, walking) more viable, or by increasing proximity of diverse land uses. Technological advancements in vehicle fuel efficiency will also reduce vehicular GHG emissions.

STATE LAWS AND POLICIES

ASSEMBLY BILL 1493 - CLEAN CAR STANDARDS OF 2010

At the statewide level, Clean Car Standards of 2010 (AB 1493 (Pavley)) require an increase in the fuel efficiency of vehicles starting with model year 2012 and ending with model year 2025.

EXECUTIVE ORDER -S-1-07 – LOW CARBON FUEL STANDARD OF 2007

Low Carbon Fuel Standard was enacted to reduce carbon intensity in transportation fuels as compared to conventional petroleum fuels, such as gasoline and diesel, and is anticipated to decrease the carbon intensity of transportation fuels by 10% by 2020.

ASSEMBLY BILL 1358 – COMPLETE STREETS ACT OF 2008

The Complete Streets Act of 2008 (AB 1358) requires cities and counties revising the circulation element of their general plan to identify how the jurisdiction will provide for the routine accommodations of all roadway users, including motorists, pedestrians, bicyclists, individual with disabilities, seniors, and public transportation users.

SENATE BILL 375 – SUSTAINABLE COMMUNITIES AND CLIMATE PROTECTION ACT OF 2008

Senate Bill (SB) 375, also known as the Sustainable Communities and Climate Protection Act of 2008, compliments AB 32 by aiming to reduce GHG emissions through integrated transportation and land use planning. It requires the state's metropolitan planning organizations (MPO) to create a sustainable communities strategy (SCS) in their regional transportation plans (RTP) for the purpose of reducing urban sprawl. Under SB 375, CARB established regional targets for GHG emissions reductions from passenger vehicle use for each MPO. The regional reduction targets for the Southern California Association of Governments (SCAG) region, which is the MPO with jurisdiction over the WRCOG subregion, are 8% per capita by 2020, and a conditional target of 13% per capita by 2035 from 2005 levels. In April 2012, SCAG adopted its first SCS, which demonstrates how the region will achieve the GHG emissions reduction targets set by CARB.

REGIONAL PLANS, PROGRAMS AND POLICIES

RIVERSIDE COUNTY INTEGRATED PROJECT AND COMMUNITY AND ENVIRONMENTAL TRANSPORTATION ACCEPTABILITY PROCESS

In 2003, the County of Riverside completed a comprehensive planning program, called the Riverside County Integrated Project, or RCIP, that included a coordinated regional transportation planning effort: the Community and Environmental Transportation Acceptability Process (CETAP). CETAP led to the identification of potential transportation corridor routes in western Riverside County that will benefit commuters and serve the County's growing economy. The Cajalco Road Corridor that traverses the southern portion of the City's planning area is being studied for potential widening and improvement in an effort to relieve congestion and offer an alternative to the SR-91 freeway and SR-60/ I-215/SR- 91 interchange for regional commuters.

COUNTY OF RIVERSIDE CONGESTION MANAGEMENT PLAN

Urbanized areas such as Riverside County are required by State law to adopt a Congestion Management Plan (CMP). The goals of the CMP are to reduce traffic congestion and to provide a mechanism for coordinating land use development and transportation improvement decisions. Local agencies are required to establish minimum level of service (LOS) thresholds in their general plans and conduct traffic impact assessments on individual development projects. Deficiency plans must be prepared when a development project would cause LOS "F" on non-exempt CMP roadway segments. The deficiency plans outline specific mitigation measures and a schedule for mitigating the deficiency.

RIVERSIDE TRANSIT AGENCY (RTA)

The Riverside Transit Agency (RTA) was established as a Joint Powers Agency on August 15, 1975 and began operating bus service on March 16, 1977. RTA is the Consolidated Transportation Service Agency for western Riverside County and is responsible for coordinating transit services throughout the approximate 2,500 square mile service area, providing driver training, assistance with grant applications and development of Short Range Transit Plans (STRPs). The member jurisdictions include the cities of Banning, Beaumont, Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Moreno Valley, Murrieta, Norco, Perris, Riverside, San Jacinto, Temecula and the unincorporated areas of Riverside County Supervisorial Districts I, II, III and V. RTA provides both local and regional services throughout the region with 38 fixed-routes, five Commuter Link routes, and Dial-A-Ride services using 231 vehicles. In the cities of Corona, Beaumont and Banning, RTA coordinates regional services with municipal transit systems. In Riverside, RTA coordinates with the City's Riverside Special Services, which provides ADA complementary service to RTA's fixed-route services.

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS REGIONAL TRANSPORTATION PLAN AND SUSTAINABLE COMMUNITIES STRATEGY

Southern California Association of Governments (SCAG) is the regional planning agency for Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties, and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SCAG serves as the federally designated Metropolitan Planning Organization (MPO) for the Southern California region and is the largest MPO in the U.S. With respect to air quality planning, SCAG has prepared the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (2012 RTP/SCS): Towards a Sustainable Future, to fulfill federal planning requirements contained in the Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which calls for regions to consider urban form and natural resources as part of the transportation planning process. Under SB 375, all of California’s MPOs must prepare an SCS as a component of their RTP. The RTP serves as a long-range transportation plan that is developed and updated by SCAG every four years. The RTP provides a vision for the development of transportation facilities throughout the region based on growth forecasts and economic trends that project over a 20-year period. The SCS expands upon transportation strategies in the RTP to analyze growth patterns and establish future land use strategies that aid the region in meeting its GHG reduction targets. The SCS does not mandate future land use policies for local jurisdictions, but rather provides a foundation of regional policy upon which local governments can build. WRCOG and its member jurisdictions partner with SCAG and are active members in the development and implementation of the RTP/SCS.

TRANSPORTATION UNIFORM MITIGATION FEE

WRCOG’s Transportation Uniform Mitigation Fee (TUMF) was implemented in 2003 as one of the largest multi-jurisdictional fee programs in the nation. TUMF makes improvements to the regional transportation system and provides transportation demand management through funds from new development, ensuring that development mitigates for increases in traffic volumes. TUMF is a 32-year program that provides subregional transportation and infrastructure benefits to local agencies in Western Riverside County. The program is expected to raise \$4.2 billion, and 1.64% is allocated to the Riverside Transit Agency (RTA) for transit improvements. To mitigate the impacts of transportation construction projects, WRCOG allocates 1.59% of TUMF funds collected to the Riverside Conservation Authority (RCA) to purchase habitat for the Multi Species Habitat Conservation Program (MSHCP).

WRCOG NON-MOTORIZED TRANSPORTATION PLAN

The Non-motorized Transportation Plan (NMTP) provides a planned network of bicycle and pedestrian facilities to enhance mobility in the subregion. The NMTP identifies 28 bicycle and pedestrian routes and multi-jurisdiction connections. Planned routes connect neighborhoods, schools, parks, shopping centers, employment centers, and transit centers. WRCOG coordinated with local jurisdictions to prepare the NMTP, working collaboratively with bicycle organizations, transportation agencies, large employers, and activity centers. The NMTP addresses state complete streets requirements by promoting “typical” design standards for route classifications, bike parking standards, sidewalk design standards, maintenance of on and off road facilities, optional street crossing standards, and pedestrian and bicycle safety standards.

FOUR-CITY ELECTRIC VEHICLE PLAN

Alternative fuel vehicles operated by RTA use compressed natural gas (CNG) technology to fuel buses. RTA operates CNG fueling stations in Riverside and Hemet. The CNG stations also serve other agencies, including Omnitrans and the City of Riverside. WRCOG prepared a Four-City Electric Vehicle Plan to create near-term and long-range transportation networks and scalable implementation strategies for Neighborhood Electric Vehicles (NEVs) in the cities of Corona, Norco, Riverside, and Moreno Valley. The WRCOG Clean Cities coalition supports local actions to reduce petroleum consumption for transportation. Clean Cities mobilizes other local stakeholders to expand the use of alternative fuels and implement idle reduction measures, accelerate deployment of alternative fuel vehicles, and improve and expand local refueling infrastructure. Through grants from the U.S. Department of Energy and the California Energy Commission, WRCOG’s Clean Cities Coalition is participating in a regional Plug-In Electric Vehicle Study with SCAG and the South Bay Clean Cities Coalition.

SUBREGIONAL TRANSIT-ORIENTED DEVELOPMENT

Transit-oriented development incorporates transit into future and existing development. WRCOG prepared the Transit Oriented Development (TOD) Study Guiding Principles and Policies; TOD best practices Study; and Transit-Oriented Development Survey Report. The WRCOG Bus Rapid Transit route plan outlines six development-oriented transit stations; multimodal stations in Corona, Riverside, and Perris; a major bus transfer station in Menifee; an end of the line station at Riverside County Medical Center; a village center park-and-ride station in Dos Lagos; and a walk-up station at Abbott Labs.

CITY OF RIVERSIDE TRANSPORTATION AND LAND USE POLICIES

GENERAL PLAN 2025

The City of Riverside General Plan includes objectives and supporting policies that support vehicle trip reduction and enhance pedestrian and bicycle infrastructure and amenities, including:

- Build and maintain a transportation system that combines a mix of transportation mode and transportation system management techniques, and that is designed to meet the needs of Riverside's residents and businesses, while minimizing the transportation system's impacts on air quality, the environment and adjacent development.
- Design the Magnolia Avenue/Market Street Corridor as a transit- and pedestrian-oriented Mixed Use boulevard.
- Cooperate in the implementation of regional and inter-jurisdictional transportation plans and improvements to the regional transportation system to reduce vehicles trips.
- Promote and support an efficient public multi-modal transportation network that connects activity centers in Riverside to each other and to the region.
- Provide an extensive and regionally linked public bicycle, pedestrian and equestrian trails system.
- Also includes new policies related to greenbelts.

BICYCLE MASTER PLAN

The City of Riverside's Bicycle Master Plan was updated March 2012 as an addendum to the City of Riverside 2007 Bicycle Master Plan. It provides an updated inventory of all bicycle infrastructure and non-infrastructure improvements implemented over the past five years within the City of Riverside. It also presents current and future bicycle and walking impact analysis, which includes estimated bicycle and walking trips, reduced vehicle miles traveled, and emission reductions for current and future conditions. The addendum also provides an updated list of recommended bicycle improvements, including a new network of proposed bicycle facilities and programs that will help the City of Riverside upgrade their current designation as a bronze level bicycle friendly community.

DRAFT CITY-WIDE BIKE DESIGN GUIDELINES

Draft City-Wide Bike Design Guidelines are expected to be adopted end of 2014. They will target private development and will include bicycle infrastructure and parking requirements.

RIVERSIDE SMARTCODE SPECIFIC PLAN

The proposed Riverside SmartCode Specific Plan work program was approved in concept by the City Council on January 8, 2013 as part of the Business Ready Riverside Strategy, as it is intended to encourage economic development and streamline the entitlement process for new development projects. The Smart Code Specific Plan will encompass approximately 90% of the City's office, commercial and industrial zoned properties and cover approximately 20% of the City, replacing, in full or in part, nine existing specific plans spread across the City. The Smart Code Specific Plan would result in one cohesive illustrated vision, present clear and consistent development standards, set forth an infrastructure plan to support future investment, establish a built-in mitigation program for historic resources, foster economic development and streamline the entitlement process for projects consistent with the vision and accompanying Program Environmental Impact Report.

OTHER CITY PROGRAMS

Other programs in the City of Riverside support transit and city vehicle fleet efficiency, and include the following:

- Transit Signal Priority,
- Bus Fleet Fuel Conversion, Riverside Transit Agency uses CNG vehicles for all large 40-ft buses (Directly Operated) and larger contracted buses,
- Traffic Signal Coordination,
- Intelligent transportation systems,
- Fleet Management Upgrade

GREEN ACTION PLAN

The Green Action Plan contains goals and implementing actions to reduce GHGs through the use of alternative transportation and land use changes.

Goal 9: *Use specific plans along the Bus Rapid Transit (BRT) corridors and on the transportation hubs to address infrastructure systems, revitalization of urban and community centers, and promote infill and compact development.*

- A. Amend the Downtown Specific Plan to create incentives for high density and mixeduse opportunities along the BRT corridor that include greater densities for greener design.

Goal 10: *Meet the environmentally sensitive goals of the General Plan 2025 specified in the Mitigation Monitoring Program of the Environmental Impact Report, and the Implementation Plan following the timelines set forth in each.*

- A. Apply urban planning principles that encourage high density, mixed-use, walkable/bikeable neighborhoods, and coordinate land-use and transportation with open space systems.
- B. Review older specific plans for consistency with the General Plan 2025 and add sustainable policies as funding permits.

Goal 14: *Decrease vehicle miles traveled 15% by 2015 based on the 2009 baseline.*

- A. Encourage the use of bicycles as an alternative form of transportation, not just recreation, by increasing the number of bike trails by 15 miles and bike lanes by 111 miles throughout the City before 2025.
- B. Implement a regional transit program between educational facilities.
- C. Promote and encourage the use of alternative methods of transportation throughout the community by providing programs to city employees that can be duplicated by local businesses.
- D. Coordinate a plan with local agencies to expand affordable convenient public transit within the City limits.
- E. Keep permit costs for installing Electric Vehicle Chargers at a minimum and streamline the permitting process by developing easy to understand literature to enable designers, contractors, and home owners to secure permits and correctly install them in compliance with the National Electric Code.

Goal 15: *Reduce mobile sources of pollution 5% by 2020.*

- A. Encourage the purchase of alternative fuel vehicles or lower emission hybrids and plug-ins for the residential and business community by offering incentives.
- B. Synchronize traffic signals along primary City arterials by the end of 2012.
- C. Implement a program to design, construct or close at least one of the 26 railroad grade separations each year.
- D. Reconstruct at least two freeway/street interchanges by 2012.
- E. Implement an electric vehicle outreach plan.
- F. Install 11 public electric vehicle charging stations at 7 city facilities.

- G. Install a second public CNG fueling station at the Water Quality Control Plant.
- H. Increase the number of clean vehicles in the non-emergency City fleet to at least 60%.

WRCOG SUBREGIONAL CAP MEASURES

Transportation and land use measures in the WROCG CAP include the most extensive list of subregional and local measures, which aim to reduce single-occupancy vehicle travel, increase active transportation, improve public transit access, increase motor vehicle efficiency, and promote sustainable growth patterns.

Table 4 – WRCOG CAP Transportation Measures		
Measure	Participation Level	Actions
SR-6: Pavley and Low Carbon Fuel Standard	Sub-Regional	Building from Pavley 1, Executive Order S-1-07, known as the Low Carbon Fuel Standard (LCFS), requires the carbon-intensity of California's transportation fuel to be reduced by at least 10% by 2020.
SR-7: Metrolink Expansion	Sub-Regional	Identified in SCAG's 2012 RTP/SCS, the Metrolink Perris Valley Line will be extended from Riverside to Perris with service beginning in 2015.
SR-8: Express Lanes	Sub-Regional	Extension of express lanes along State Route-91 (SR-91) and Interstate-15 (I-15) would be operational by 2017 and 2020 respectively, and would lead to reduced congestion according to regional transportation modeling.
SR-9: Congestion Pricing	Sub-Regional	Congestion pricing is a TDM tool examined by SCAG through its Express Travel Choices Study. Pricing mechanisms may include toll lanes/roads or mileage-based user fees, which discourage automobile traveling by increasing travel costs. Currently an expansion of the toll lanes on SR-91 is planned to continue these toll lanes through Corona and into Riverside.
SR-10: Telecommuting	Sub-Regional	Telecommuting is a soft TDM mechanism that has increased considerably over the past decade; According to SCAG, telecommuting could increase even more by 2020 (to 5% of workers in the region) and 2035 (to 10% of workers), from the current 2.6% that currently telecommute. Reflects the regional share of TDM strategies that may be implemented on a regional level given the high degree of out-commuting that occurs in Western Riverside County
SR-11: Goods Movement	Sub-Regional	Accounts for the region's "share" of SCAG and AQMD's anticipated cargo-efficiency investments, including policies as well as physical improvements such as "truck climbing" lanes on State Route-60 (SR-60), funded by RCTC.
SR-12: Electric Vehicle Plan and Infrastructure	Sub-Regional	SCAG has developed a regional plug-in electric vehicle (PEV) readiness plan, and WRCOG has a similar subregional plan for PEV readiness. Through these plans and outreach efforts, alternative-fuel vehicles will be promoted as one strategy to reduce GHG emissions associated with passenger vehicles.
T-1: Bicycle Infrastructure Improvements	Platinum	Implement a 50% increase in bicycle lane mileage from baseline levels, by 2020.
T-2: Bicycle Parking	Platinum	Amend zoning to require provision of bike parking for all multi-family or mixed-use projects consisting of a mix of residential, retail, and office space.
T-3: End of Trip Facilities	Platinum	Amend zoning to require installation of end-of-trip facilities for new commercial buildings greater than 50,000 square feet, which further incentivize alternative transportation modes, such as walking and biking and include showers, changing rooms, lockers, and bike racks.

Table 4 – WRCOG CAP Transportation Measures

Measure	Participation Level	Actions
T-4: Promotional Transportation Demand Management	Silver	Train an existing staff person to promote TDM strategies to existing business, which reduce demand for roadway travel, particularly in single-occupancy vehicles.
T-7: Traffic Signal Coordination	Platinum	Coordinate traffic signals on an additional 50% of arterial roads which were not coordinated in the base year. Traffic signal coordination describes a method of timing groups of traffic signals along an arterial to provide smooth movement of traffic with minimal stops.
T-8: Density	Gold	Achieve a 10% increase in community-wide household and employment density over baseline conditions by 2020.
T-9: Mixed-Use Development	Silver	Achieve a 5% jobs/housing ratio improvement over baseline conditions
T-11: Pedestrian-Only Areas	Platinum	Designate one additional major activity center in the community as a permanent pedestrian-only area over baseline conditions.
T-12: Limit Parking Requirements for New Development	Platinum	Amend zoning to reduce parking requirements for new non-residential development by 25% over baseline conditions.
T-13: Bus Rapid Transit Service	Gold	Work with RTA to offer BRT service within two (2) corridors
T-14: Voluntary Transportation Demand Management	Gold	25% of employees within the jurisdiction participate in voluntary TDM programs
T-15: Accelerated Bike Plan Implementation	Platinum	Install 75% of all bicycle facility miles identified in jurisdiction's Bike Plan by 2020
T-16: Fixed Guideway Transit	Platinum	Implement a fixed-guideway transit system to support a Streetcar system.
T-17: Neighborhood Electric Vehicle Programs	Gold	Adopt a comprehensive NEV program including signage for NEVs and an educational program related to the use of NEVs.
T-18: Subsidized Transit	Platinum	Provide subsidized or discounted transit passes to 3% of residents, students, and employees living, working, or going to school in the community.

SOLID WASTE

Waste disposal creates emissions when organic waste (e.g., food scraps, yard clippings, paper and wood products) is buried in landfills and anaerobic digestion takes place, emitting methane. Additionally, extracting and processing raw materials for consumer products, distributing them to consumers, and disposing of them creates GHG emissions. In most California communities, between 1% and 3% of communitywide GHG emissions are typically associated with solid waste generation and disposal in landfills (2% for the City of Riverside). The following discussion identifies existing local waste collection pricing, organic waste diversion, non-organic waste diversion/reduction, waste hauling operations, and waste-to-energy policies and programs within the City of Riverside.

STATE LAW AND POLICIES

ASSEMBLY BILL 939 – INTEGRATED WASTE MANAGEMENT PLAN (1989)

Every jurisdiction is required to create an integrated waste management plan to increase diversion rates set by the Integrated Waste Management Act of 1989 (AB 939) to achieve 20% waste reduction by 1995, and 50% waste reduction by 2000.

ASSEMBLY BILL 32 - COMMERCIAL AND MULTI-FAMILY RESIDENTIAL RECYCLING ORDINANCES

Commercial and multi-family residential recycling ordinances are required as part of the Mandatory Commercial Recycling measure in AB 32, as of July 1, 2012.

SENATE BILL 1016 - PER CAPITA DISPOSAL MEASUREMENT SYSTEM (2008)

SB 1016 (Chapter 343, Statutes of 2008 [Wiggins, SB 1016]) establishes a per capita disposal measurement system to make the process of goal measurement, as established by the Integrated Waste Management Act of 1989 (AB 939), simpler, more timely, and more accurate. SB 1016 builds on AB 939 compliance requirements by implementing a simplified measure of jurisdictions' performance, changing the measure to a disposal-based indicator, the per capita disposal rate, which is calculated using a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities.

CITY OF RIVERSIDE SOLID WASTE POLICIES

The City of Riverside operates its own waste disposal and waste management divisions to provide services for business and residential customers, and relies on contracted private waste hauling services from Athens Services, Burrtec Waste Industries Inc., and CR&R Services. The landfills serving Riverside and the WRCOG subregion are located in unincorporated areas of Riverside County, and the facilities are owned and operated by the County. The City of Riverside's waste disposal division includes the following programs:

- Separate Waste Bills
- Consumer Education Billing Program
- Tiered-Rate Waste Collection Fee Program
- Waste Disposal Outreach

Organic waste (e.g., food waste, yard waste) accounts for 14% of the statewide municipal waste stream; however, less than 3% of organic waste was diverted and recycled in 2010. Reducing, recovering, and recycling food waste and yard waste diverts organic materials from landfills and incinerators, reducing GHG emissions from landfill operations.

- Outreach Campaign to Encourage Home/ Business On Site Composting
- Yard Waste Collection Program
- Yard Waste Outreach Campaign
- Lumber Scrap Diversion Outreach Campaign to Building Industry

Riverside's Recycling programs include the following:

- Recycling Campaign
- Curbside Recycling Collection
- Local Recycling Collection Centers
- Comingled Waste Collection Program (One Bin)
- Voluntary Waste Reduction Audits for Large Waste Generations

All waste hauling service providers offer curbside waste hauling of trash, green waste, and recycling by robotic trucks. All contracted waste haulers for the City of Riverside have the following programs:

- Low-Emission Waste and Recycling Trucks
- Waste Hauling Route Optimization

Waste feed stocks that can produce energy include municipal solid waste, construction and demolition debris, agricultural waste (e.g., manure), industrial waste from mining, lumber mills, and the gases naturally emitted from landfills. Existing waste-to-energy programs in the City of Riverside are:

- Methane capture systems which capture the gaseous byproducts of waste, consisting mainly of carbon dioxide and methane, and
- Biogas facilities which place food-processing waste or agricultural waste into a digester, which produces pure methane that can be burned in boilers or cleaned for use in engines or to generate electricity.

GREEN ACTION PLAN

The Green Action Plan contains the following goals and implementing actions to reduce GHGs from solid waste landfills.

Goal 6: *Implement programs to reduce waste, based on the 2007 per capita baseline, by 75% by 2020.*

- Develop measures to encourage that a minimum of 90% of recoverable waste from all construction sites be recycled throughout Riverside by 2015, beginning with 40% in 2010 and increasing by 10% each year thereafter.
- Encourage the reduction of any disposable, toxic, or nonrenewable products by 5%.
- Expand the City's Green Waste program to capture 75% of the green waste generated by City facilities annually.
- Expand the City's existing recycling program to recycle at least 15% from all municipal facilities annually.
- Explore a 'Zero Waste Ordinance' by 2012.
- Implement the City's Environmentally Preferable Purchasing Policy.
- Enforce the 2010 California Green Code provisions concerning construction and demolition waste reduction, disposal and recycling.
- Implement the AB 341 program to all commercial businesses and multi-family units of 5 or more to increase recycling in the City to a measurable goal of 75%. AB 341 has been developed to encourage recycling at commercial businesses.
- Update website to make it more informative to residents and commercial and multifamily businesses.
- Increase use of free mulch on city properties.
- Increase recycling awareness and opportunities to recycle at city facilities. All facilities are practicing recycling. The next step is to increase recycling at the corporation yard and city parks.
- Increase collection of hazardous waste materials in the City by 5% by 2014.

Goal 7: *Implement educational programs throughout the community to encourage green practices.*

- Encourage the reduction of any disposable, toxic, or nonrenewable products by 5% through program creation by 2010 and thereafter.
- Develop and implement State Standards based curriculum for K-12 educational facilities by 2010 and thereafter.
- Evaluate and implement online resources by 2010 and thereafter.

WRCOG SUBREGIONAL CAP MEASURES

Measures in the WRCOG CAP primarily aim to reduce community and municipal solid waste sent to landfills.

Table 5 – WRCOG CAP Solid Waste Reduction

Measure	Participation Level	Actions
SR-13: Construction & Demolition Waste Diversion	Sub-Regional	Effective July 1, 2012, CALGreen, the state's Green Building Standards Code, requires jurisdictions to divert a minimum of 50% of their nonhazardous C&D waste from landfills.
SW-1: Yard Waste Collection	Gold	Provide residential green waste bins for collection and transport to an organic waste processing facility.
SW-2: Food Scrap and	Gold	Accept food scraps and compostable paper within

Table 5 – WRCOG CAP Solid Waste Reduction

Measure	Participation Level	Actions
Compostable Paper Diversion		residential green waste bins or provide separate food scrap collection bins.

GREEN INFRASTRUCTURE

Street trees and trees on private property are valuable community assets. Trees beautify neighborhoods, increase property values, reduce noise and air pollution, keep buildings cool in the summer, create privacy, and establish habitat for bird species. The urban forest also captures and stores carbon as the trees grow. Building integrated vegetation (e.g., green roofs) cool buildings and control stormwater runoff while reducing GHG emissions.

REGIONAL PLANS, PROGRAMS AND POLICIES

MULTIPLE SPECIES HABITAT CONSERVATION PLAN

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive, multi-jurisdictional plan to conserve sensitive species and their associated habitats in the subregion. Created in 2004 by the Western Riverside County Regional Conservation Authority (RCA), the MSHCP provides subregional transportation and green infrastructure benefits to local agencies and allows WRCOG jurisdictions to make land use decisions and maintain a strong economy in a context that comprehensively addresses federal and state Endangered Species Acts (ESA and CESA) requirements.

CITY POLICIES

Urban forestry programs in Riverside result from a partnership between the City Council; Parks, Recreation and Community Services Commission Urban and Community Forest Subcommittees; and Public Works. Funding for urban forestry projects in Riverside comes from the City's Perpetual Tree Care Fund, the Adopt-a-park program, and community grants. Tree planting campaigns and requirements are part of the urban forest plan, which also includes guidelines recommending where and what species of tree should be planted at given locations. Riverside has established a goal to plant trees on all vacant City properties. Riverside's Green Infrastructure initiatives include the following:

- Urban Forest Master Plan
- Urban Forestry Program
- Tree Planting Campaign
- Mandatory Tree Planting Requirements for New Development
- Habitat Restoration
- Green Roof Promotion
- Building Shade Tree Programs (also listed under the Energy section)
 - Shade Tree Campaign
 - Shade Tree Incentives
 - Mandatory Shade Tree Requirements

GREEN ACTION PLAN

The Green Action Plan contains the following goals and policies to expand open space and the City's urban forest.

Goal 11: *Ensure that 90% of City residents have access to a park, recreational or public open space within half a mile of home.*

- A. Strengthen the City's existing trail inventory while providing a 75% increase of passive recreation and multi-use trails by 2015.
- B. Coordinate trail connections with the County of Riverside as opportunities arise.

- C. Ensure that there is an accessible park, recreational or public open space within a ½ mile of 90% of City residents by 2015.
- D. Create a City park/recreation/open space map.

Goal 12: *Increase the City's urban forest.*

- A. Plant at least 1,000 trees in City parks and right-of-ways annually.
- B. Encourage the planting of at least 3,000 shade trees on private property annually.

Goal 13: *Provide non-accessible open space areas for the protection of natural habitat that also provides green space buffers that add to the City's viewshed for the enjoyment of all residents.*

- A. Inventory and map areas currently preserved as open space easements under recorded maps and add to community map.
- B. Acquire 200 acres of open space lands for use as passive parks by 2015.
- C. Continue to partner with the Riverside Conservation Agency to implement the Multiple Species Habitat Conservation Plan (MSHCP).